

EXHIBIT E-8

ENVIRONMENTAL CONSIDERATIONS

I. DISCUSSION

The applicant, Diane K. Hitt, has obtained permission to situate an FM broadcast antenna and supporting structure on a privately held parcel of land. The site is located within a sparsely populated rural area of Kern County 5.0 kilometers north, northwest of the center of Willow Springs, California. The ground elevation of the site is 864.1 meters (2835 feet) above mean sea level.

The tower and antenna will consist of a 168.9 meter (554 feet) guyed steel tower supporting an Electronics Research, Inc., model 200-2AE two-bay circularly-polarized nondirectional FM broadcast antenna. The total height of the tower and antenna will be 169.8 meters (557 feet) above ground, including top-mounted lighting beacon. The transmitting equipment will be housed in a small concrete block building to be constructed near the base of the tower.

II. NON-IONIZING RF RADIATION

In accordance with the requirements of the FCC Public Notice dated November 14, 1985, entitled Environmental Processing Rules For Broadcasting, the worst-case power density in mW/cm^2 has been calculated using equation four of Section II of the Office of Science & Technology Bulletin No. 65 entitled, Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation. Equation four has been reduced so the constant reflects both the factor 1.64 used to obtain ERP relative to EIRP and the factor 1000 for the number of milliwatts/watt. Further consideration includes the Environmental Protection Agency (EPA) recommendation that a more realistic approximation should include ground reflection by assuming a maximum 1.6-fold increase in field strength or an increase in power density of 1.6^2 (2.56).

Therefore,

$$S_{\text{mW/cm}^2} = \frac{0.10496 \cdot (\text{ERP}_h + \text{ERP}_v)}{\pi \cdot R^2}$$

$$S_{\text{mW/cm}^2} = \frac{0.10496 \cdot (6000)}{\pi \cdot 167.1^2}$$

$$S_{\text{mW/cm}^2} = 0.0072 \text{ mW/cm}^2 \quad (7.2 \text{ } \mu\text{W/cm}^2)$$

$$S_{\text{mW/cm}^2} = \text{Power Density in milliwatts/centimeter}^2$$

$$\text{ERP}_h = 3,000 \text{ watts max. horizontally-polarized ERP}$$

$$\text{ERP}_v = 3,000 \text{ watts max. vertically-polarized ERP}$$

$$R = 167.1 \text{ meters from antenna radiation center to tower base}$$

The American National Standards Institute (ANSI) has established a maximum power density exposure limit of 1.0 mW/cm^2 averaged over any six-minute period, for radio frequency radiation in the band from 30 to 300 Megahertz.

In the aforementioned report, reference is made to studies conducted by the EPA in which a mathematical model of antenna behavior was developed to predict the required distance from the antenna radiation center to the bottom of the antenna supporting structure in order that the ANSI limit will not be exceeded anywhere on the ground. By interpolation of tabulated values in appendix B, table 1 of the report, it was determined that a maximum "worst" case distance of 14.2 meters would be required assuming a single dipole element with an effective radiated power of 6.0 kilowatts (the sum of horizontally and vertically polarized power), and a "best" case distance of 6.69 meters using typically available two-bay broadcast antennas.

Exhibit E-11 graphically represents the predicted power density two meters above ground as a function of distance from the base of the proposed tower. As can be seen, the proposed facility will produce a worst-case power density which is well below the standard.

Furthermore, in order to protect the public and warn of possible radio frequency radiation danger, the applicant is proposing to liberally mark the area around the tower with warning signs which comply with the ANSI standard C95.2-1982 Radio Frequency Radiation Hazard Warning Symbol.

III. CONCLUSIONS

- No underground cable or waveguide is proposed.
- Human exposure to radio frequency radiation will not exceed the maximum level established by the American National Standards Institute (ANSI) based on predictions employing the vertical radiation characteristics of the proposed two-bay λ -spaced element antenna.
- The property has not been officially designated as wilderness area, nor to the applicant's knowledge, is it under consideration for such designation.
- The applicant will comply with environmental requirements of local, state and federal governmental agencies.
- The site is not located in a floodplain.
- The site has not been locally or nationally recognized for its special scenic or recreational value.
- The site is not located in an officially designated wildlife preserve nor to the applicant's knowledge, is it pending consideration for such designation.
- The property is not listed in the National Register of Historic Places nor to the applicant's knowledge, is it eligible for listing.

- The proposed facilities will not affect threatened or endangered species or designated critical habitats as determined by the Secretary of the Interior pursuant to the Endangered Species Act of 1973.
- The proposed facilities will not affect any known Indian religious sites.
- Construction of the proposed facilities will not involve significant changes to surface features.

Therefore, it is concluded that the operation proposed herein will not significantly affect the quality of the human environment and that an environmental assessment as described in Part 1, Subpart I of the Commission's Rules is not required. Furthermore, the proposed facility would not be classified as a Major Action as defined in §1.1305 and §1.1307 of the Commission's Rules and Regulations.

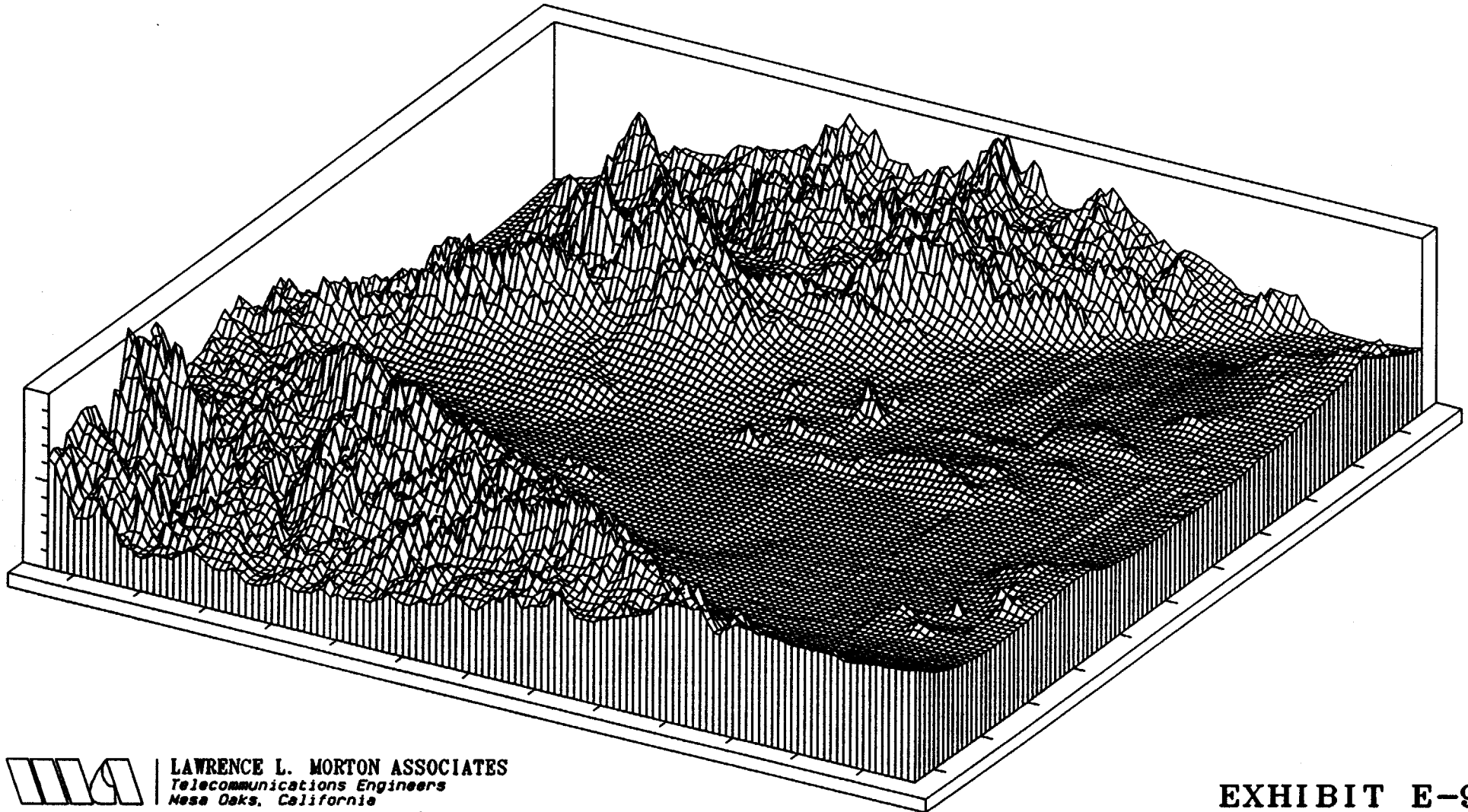
Lawrence L. Morton, P.E.
Consulting Telecommunications Engineer
February 18, 1991

DIANE K. HITT

ELEV SCALE: 0.0- 6000.0 Feet
0.0- 1828.8 Meters
ELEV RANGE: 380.0- 7800.0 Feet
115.8- 2377.4 Meters
AVERAGE ELEV: 3010.8 Ft 917.7 Mtrs
LATITUDE RANGE: 34: 28: 00/ 35: 22: 30
LONGITUDE RANGE: 117: 46: 00/118: 52: 00
LON SPAN: 62.5 Mi 100.5 Km
LAT SPAN: 62.6 Mi 100.8 Km

AREA TOPOGRAPHY

68.93 Miles/Degree Latitude
56.78 Miles/Degree Longitude



LAWRENCE L. MORTON ASSOCIATES
Telecommunications Engineers
Mesa Oaks, California

EXHIBIT E-9

Lambert Azimuthal Equal-Area

10'00" Graticule Spacing

CENTER OF MAP:

N LAT 34°50'00.00"

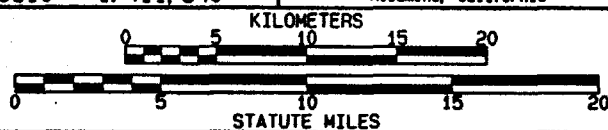
W LON 118°21'00.00"

Scale 1:411,840

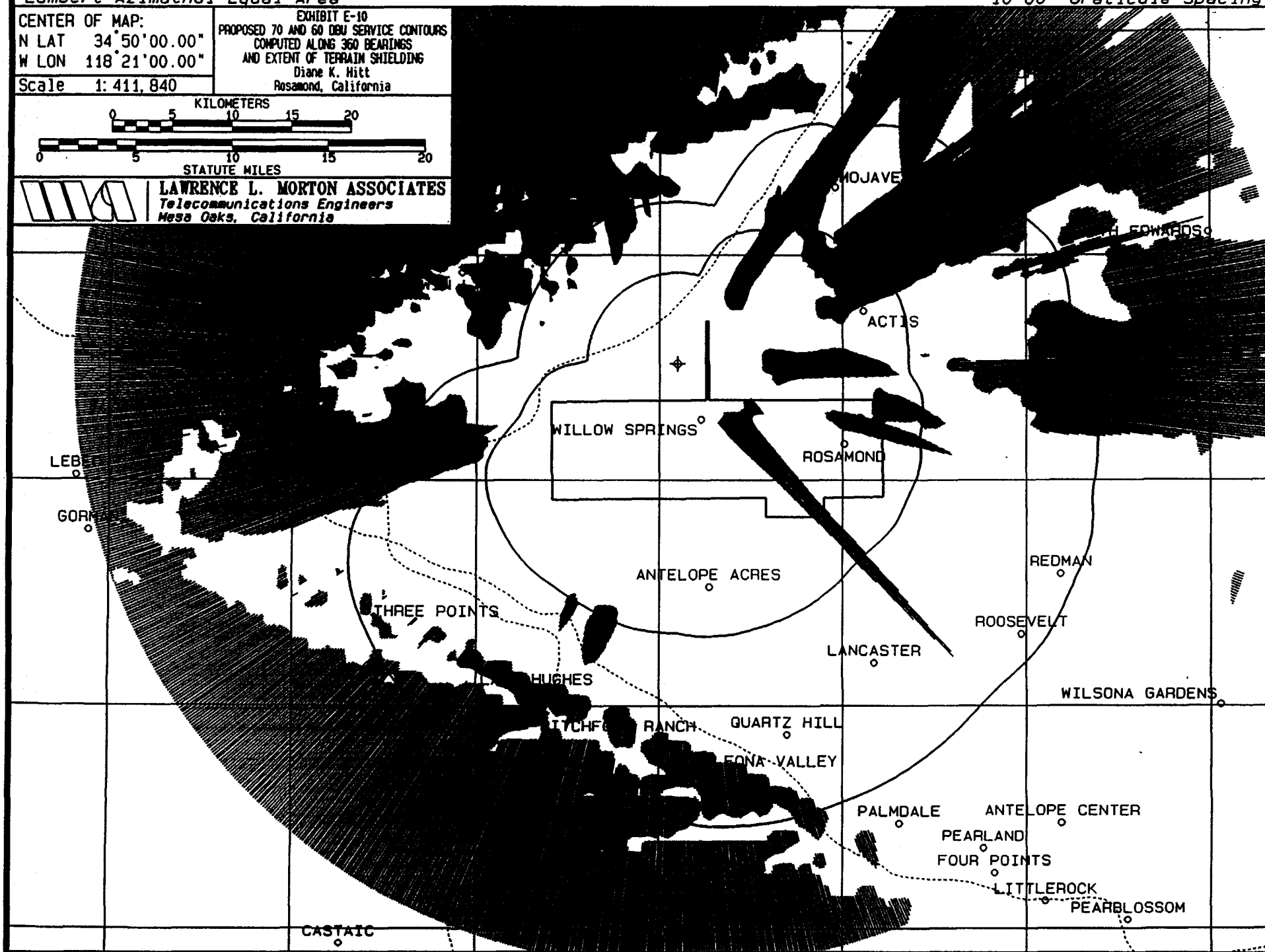
EXHIBIT E-10

PROPOSED 70 AND 60 DBU SERVICE CONTOURS
COMPUTED ALONG 360 BEARINGS
AND EXTENT OF TERRAIN SHIELDING

Diane K. Mitt
Rosamond, California



LAWRENCE L. MORTON ASSOCIATES
Telecommunications Engineers
Mesa Oaks, California



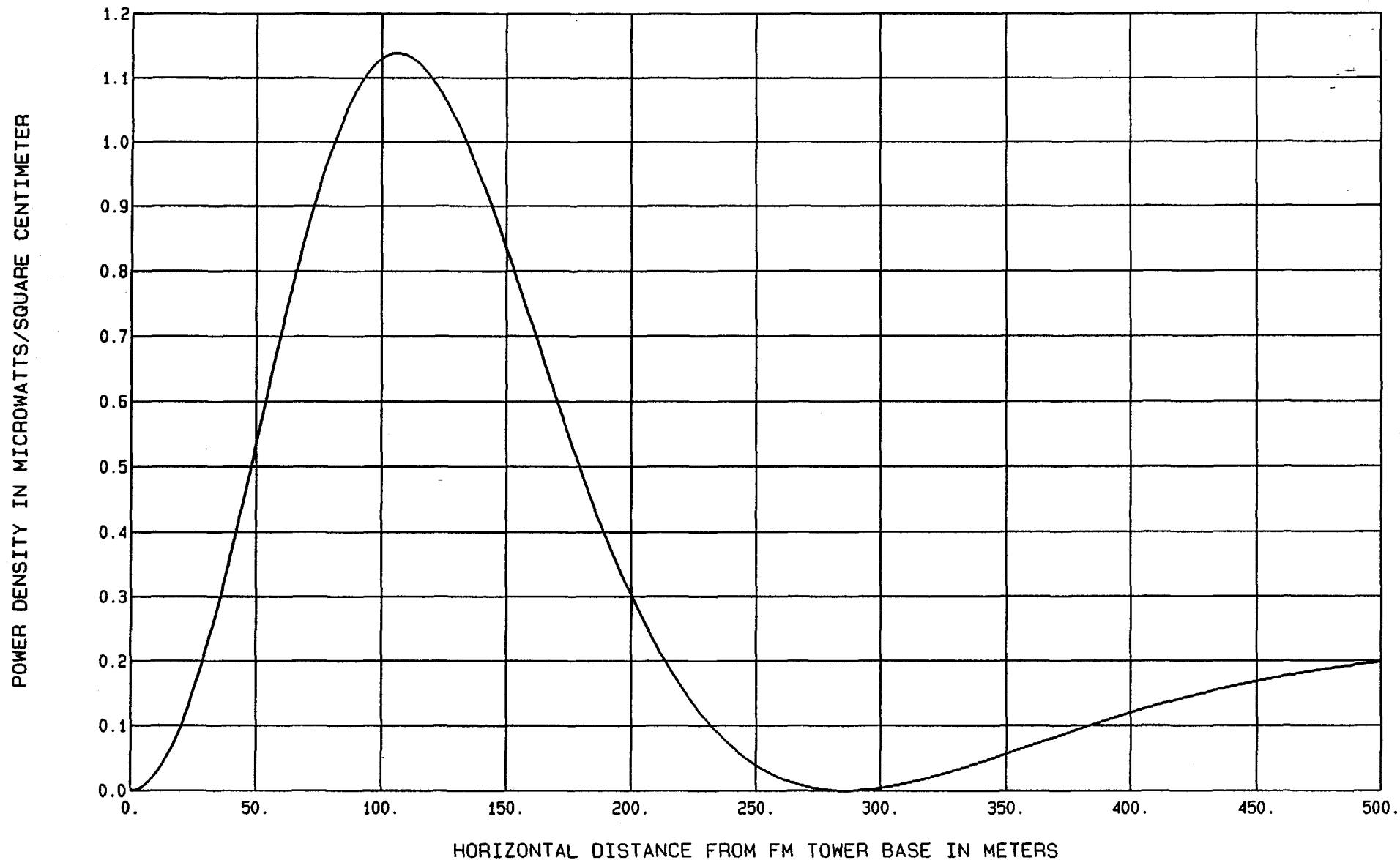


EXHIBIT E-11
TOTAL H AND V POWER DENSITY
TWO METERS ABOVE GROUND

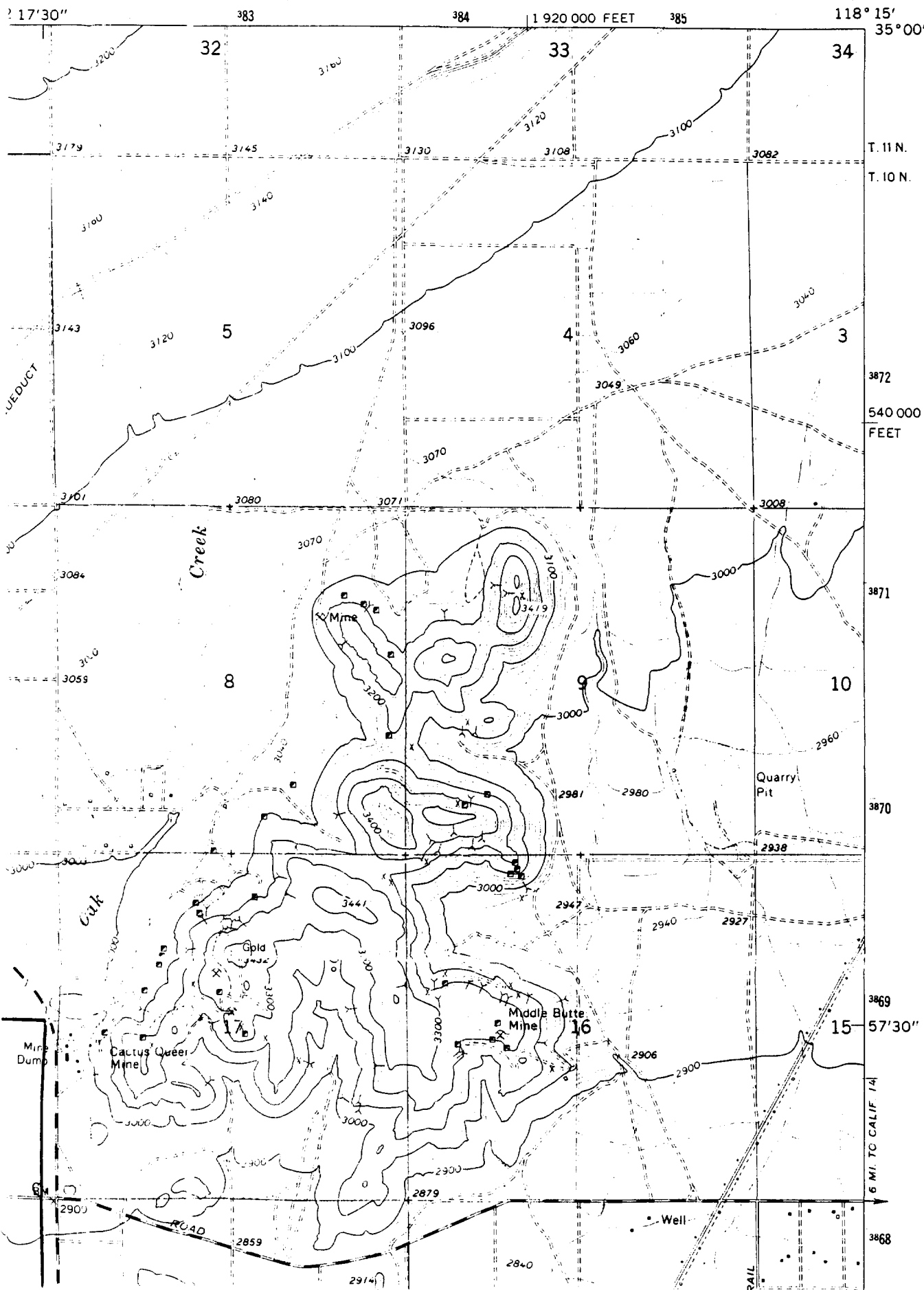
DIANE K. HITT



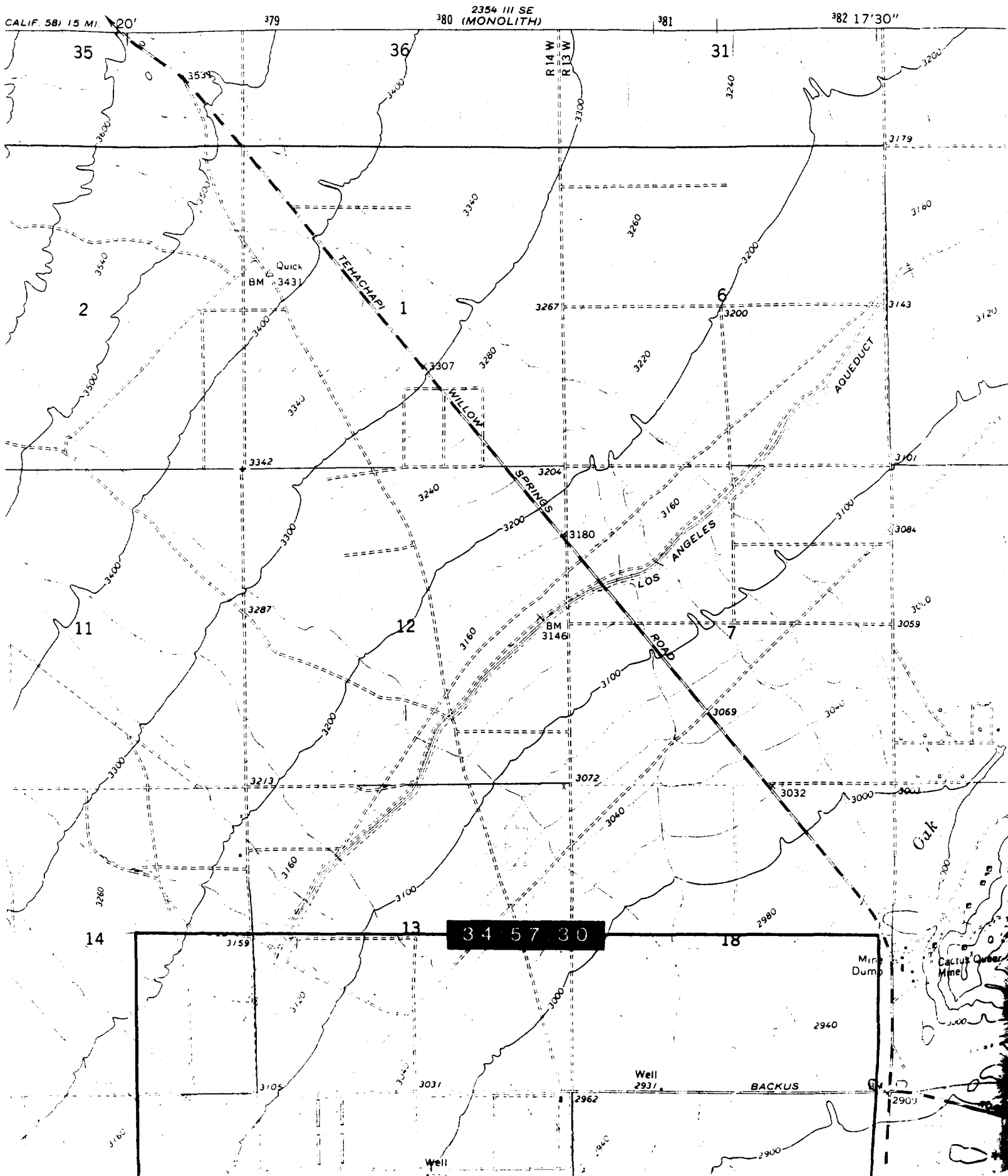
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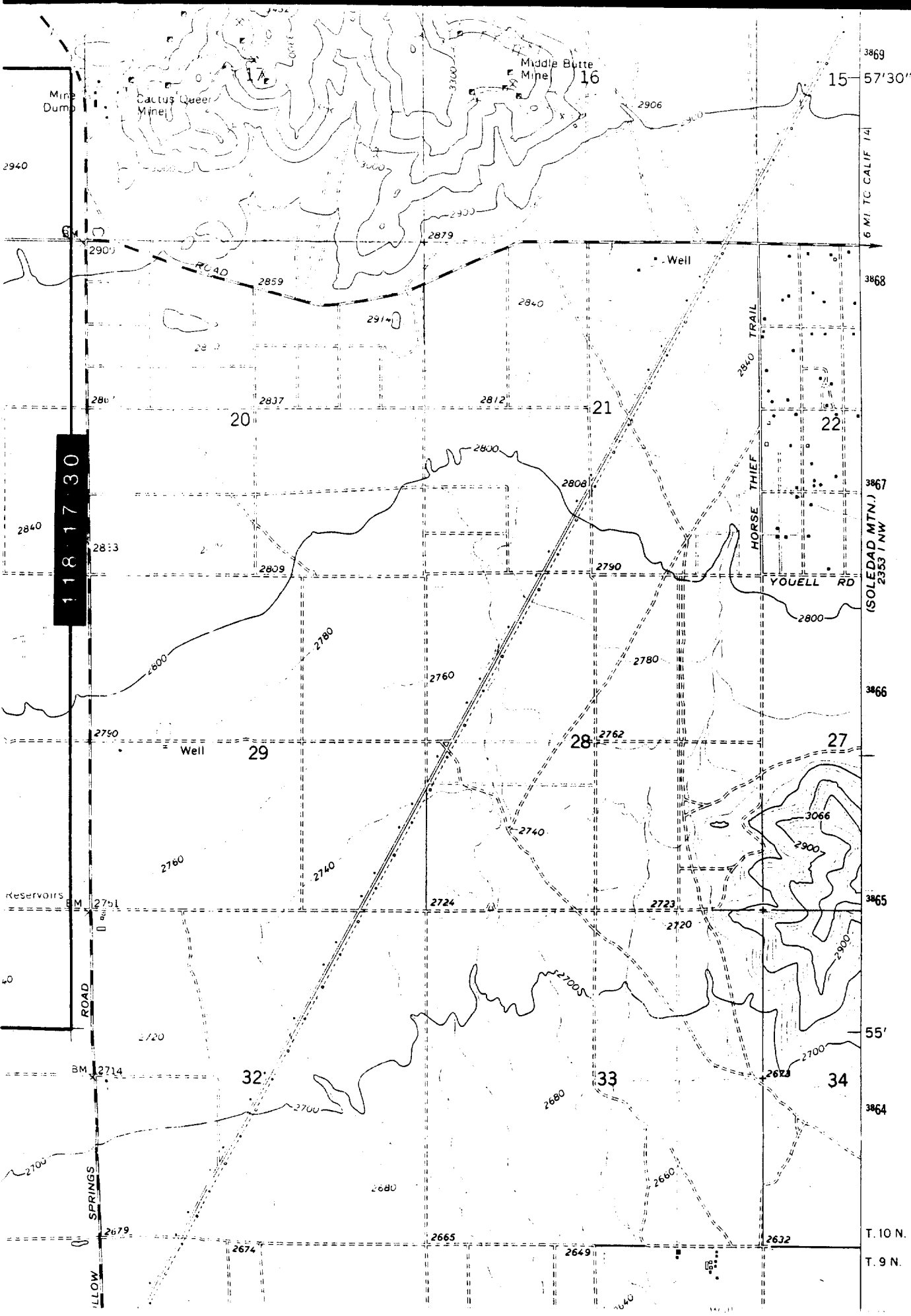
WILLOW SPRINGS QUADRANGLE
 CALIFORNIA-KERN CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)

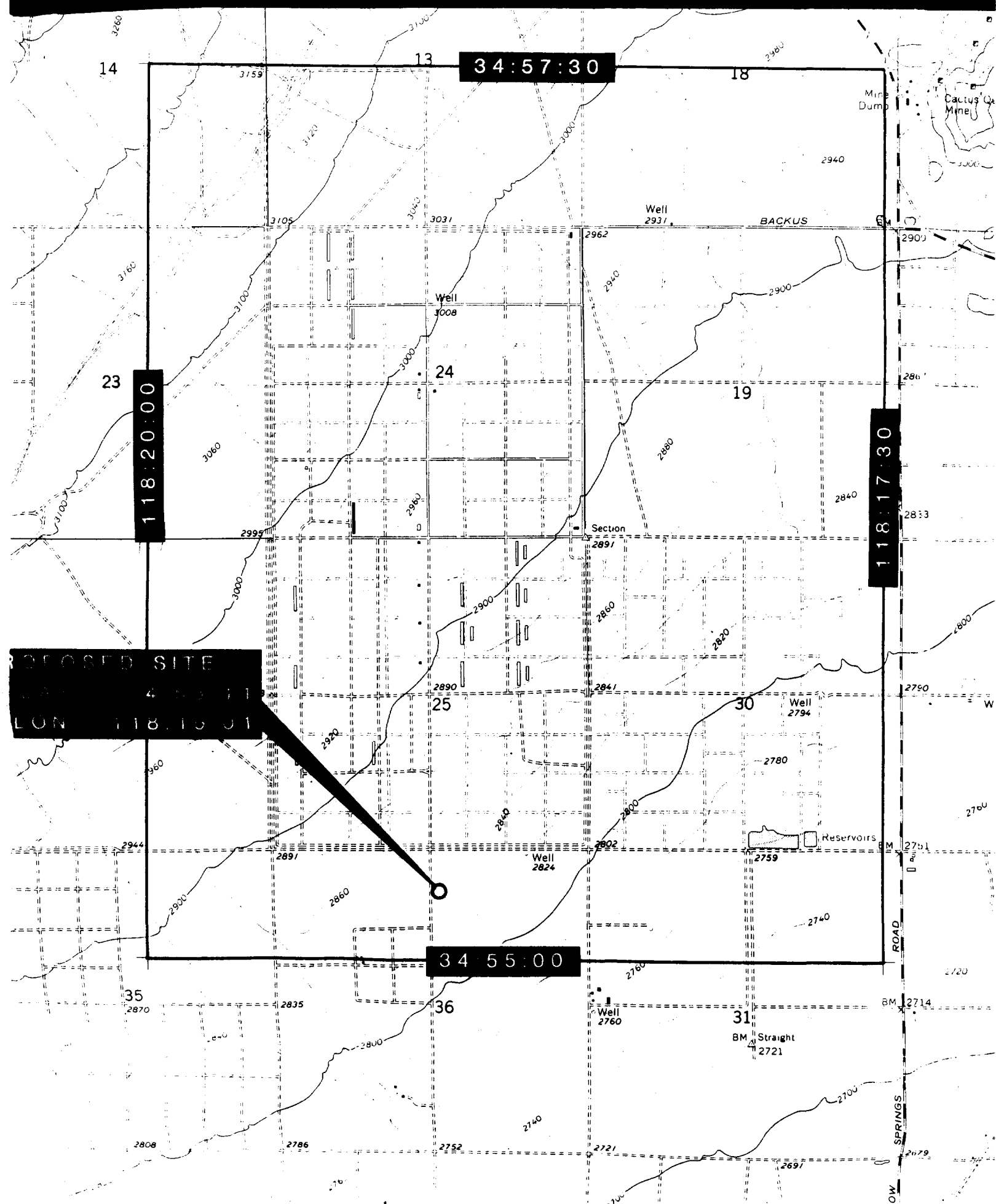
2354 11 SW
 (MOJAVE)

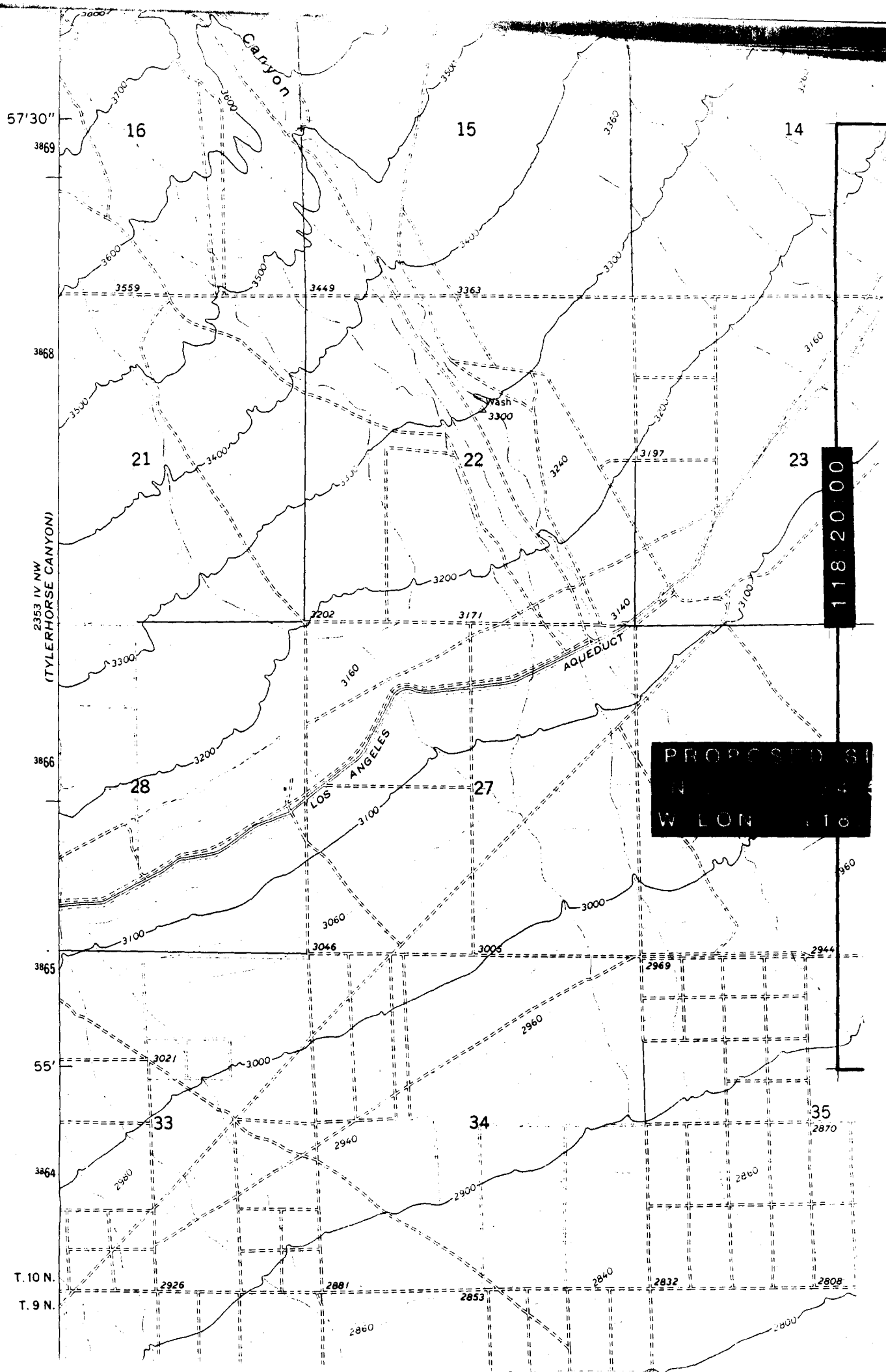


STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES



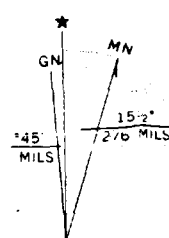
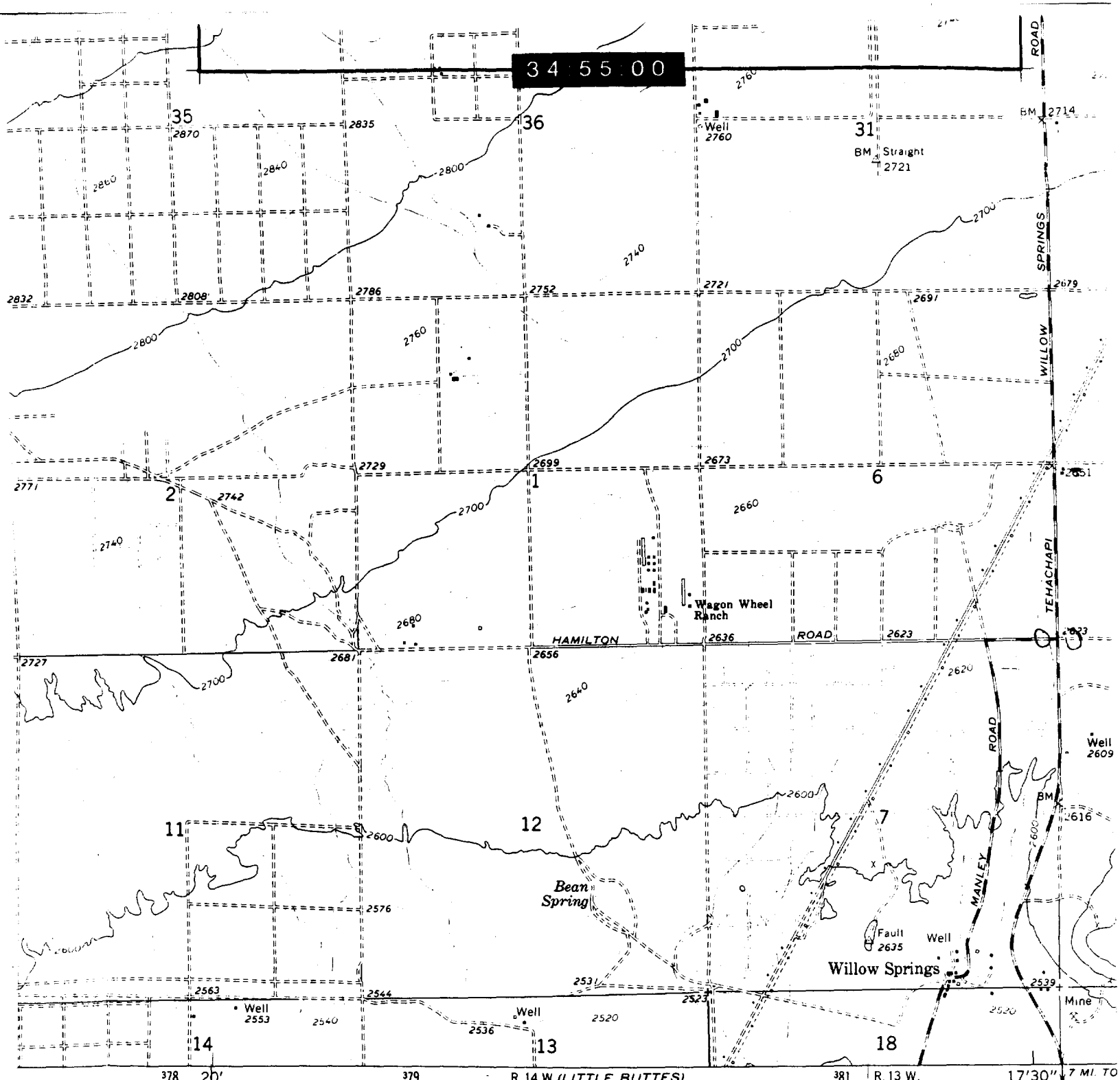




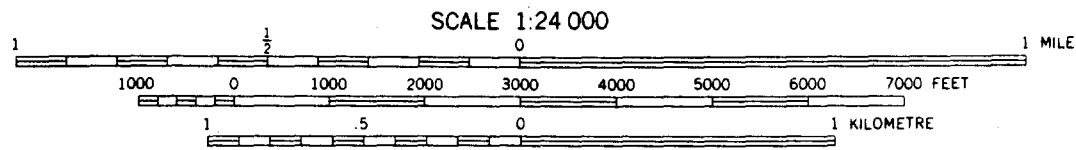


PROPOSED SITE
W LON 110

118 20 00



1974 MAGNETIC NORTH
N AT CENTER OF SHEET



CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

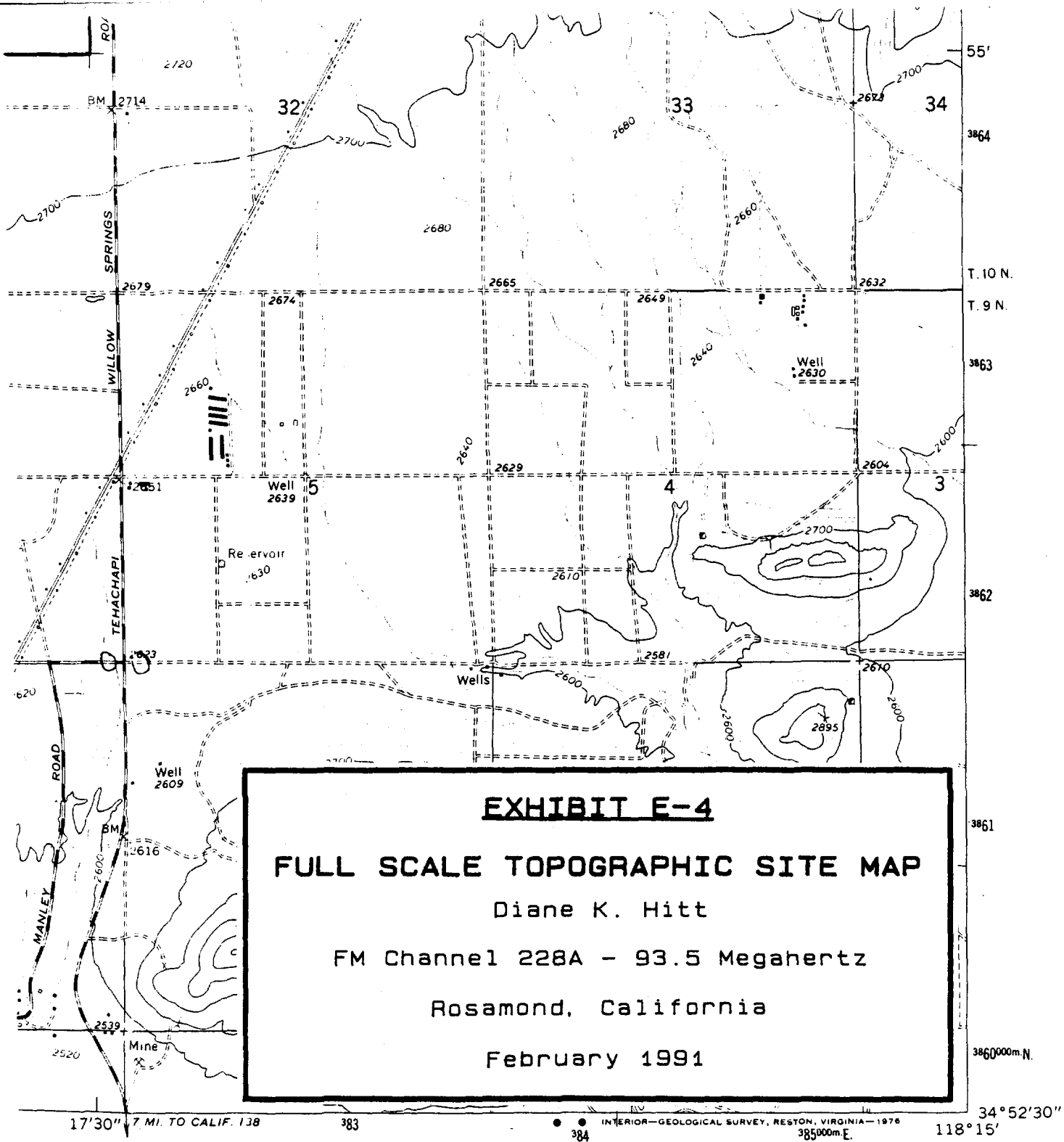


EXHIBIT E-4

FULL SCALE TOPOGRAPHIC SITE MAP

Diane K. Hitt

FM Channel 228A - 93.5 Megahertz

Rosamond, California

February 1991

1 MILE



QUADRANGLE LOCATION

ROAD CLASSIFICATION

Medium-duty ——— Light-duty ———

Unimproved dirt - - - - -

WILLOW SPRINGS, CALIF.

N3452.5-W11815/7.5

1965
PHOTOREVISED 1974
AMS 2353 IV NE-SERIES V895

(ROSAMOND)
2353 / SW